



Wireless saves time and expense

With no long cable runs, wireless cylinder thermostats save time and expense for everyone, believes Robin Fraser of HWA member Honeywell



Wireless controls make it much easier and quicker to install and upgrade central heating systems with stored domestic hot water (DHW) for peak energy efficiency.

Building Regulation Part L specifies a minimum set of controls to be provided with new installations, including those with stored DHW.

The controls must be upgraded to those minimum standards when major changes are made to a heating system (a new boiler or cylinder, for instance) and when a home is extended – but why wait, now that wireless controls make it so easy?

Figures from TACMA show that 80% of UK homes lack the full set of controls specified in the current Building Regulations. The cost of new controls will soon be covered by the resultant fuel savings, as well as making the home much more comfortable.

While upgrading to the latest TPI energy-saving control, which ensures the boiler operates at

peak efficiency, you should also convert gravity-fed systems to fully pumped.

In every case, wireless controls make the job much simpler, quicker and less expensive compared with hard wiring.

Merchants currently stock different types of wireless-enabled control pack, including wireless-enabled programmers and wireless room thermostats with advanced TPI control. The pack you need for a system with stored DHW also includes a wireless cylinder thermostat. This allows you to eliminate the long cable runs from both thermostats to the programmer, usually mounted near the boiler.

The distance you would have cabled between the cylinder thermostat and boiler can be very long, especially if the boiler is sited in a garage or outhouse.

So a wireless pack can save a lot of hassle and time – often half a day or more since there's no need to hide control

cables or drill cable holes, with no mess or damage to décor.

In most cases, the new programmer simply slots in place of the original timer, on the same backplate. The pack should also allow you to fit room and cylinder thermostats easily, where it wasn't previously possible.

The strength of the RF signal reaching the programmer depends on the number of walls and ceilings separating the units, but in a typical house the products should communicate reliably within a 30-metre range.

Importantly, the cylinder thermostat in the control packs generally communicates bi-directionally with the programmer, making the programmer the hub of the control system.

The hot water temperature will be set at the programmer, not on the sensor as with conventional wired cylinder thermostats, and the factory setting can be reset from the

programmer. Users will also appreciate being able to read the actual stored DHW temperature.

The wireless cylinder thermostat is usually very easy to install, typically in 15 minutes. Those with two parts comprise a sensor to mount on the cylinder and a transceiver which carries out the communications.

With these, you fix the transceiver backplate to the wall near the cylinder using the two screws. Remove a small section of cylinder insulation, between $\frac{1}{4}$ and $\frac{1}{3}$ from the bottom of the cylinder, clean the exposed cylinder surface to ensure good thermal contact, then install the fixing band (if provided) to hold the sensor in place, in the same way as you would with a conventional cylinder thermostat.

Where the sensor is prewired with a length of twin core cable, insert the bare ends in the terminals inside the transceiver backplate. If they're polarity-free, they can be

connected either way round. In this chosen example, clip on the front piece of the transceiver and press down until it clicks into place. The transceiver then communicates automatically with the programmer.

Where the programmer provides independent control of DHW heating and room heating, users should be able to set the DHW to come on earlier than the room heating each morning. On/off times per day should be freely programmable, allowing days to be set individually, or copied from one day to another to save time.

Every time you visit a customer, look at the controls and, where appropriate, advise customers they will benefit by upgrading to the latest energy-saving TPI controls.

In every case, a wireless controls pack makes the installation quick and easy – good news for you and your customers!